AD-A233 108

Tactical Reconnaissance and Security for the
Armor Battalion Commander: Is the Scout
Platoon Combat Capable or Combat Ineffective?

A Monograph
by

Major Terry A. Wolff

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School of Advanced Military Studies
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Fort Leavenworth, Kansas

First Term AY 90-91

91 4 03 083

REPORT DOCUMENTATION PAGE

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 27/12/90	3. REPORT TYPE AND DATES COVERED MONOGRAPH

4. TITLE AND SUBTITLE

TACTICAL RECONNAISSANCE AND SECURITY FOR THE ARMOR BATTALION COMMANDER: IS THE SCOUT PLATOON COMBAT CAPABLE OR COMBAT INEFFECTIVE?

5. FUNDING NUMBERS

6. AUTHOR(S)

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8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

This monograph examines whether the scout platoon can perform the required tactical reconnaissance and security missions for the armor battalion commander. Accurate reconnaissance and security operations provide the commander the necessary information to mass his force and exploit the enemy's weakness. This study traces the historical evolution of the scout platoon from its reconnaissance platoon origins of World War II through changes made as recently as 1990. This summary provides a backdrop to highlight findings of the reconnaissance and counterreconnaissance studies conducted between 1985-1988. Additionally, 31 National Training Center Take Home Packets from rotations conducted between October 1986 through April 1990 were assessed to determine whether the performance of scout platoons has improved recently. This paper suggests that our scout platoon does not conduct successful reconnaissance or security. Our doctrine asks the scout platoon to accomplish more then is humanly possible. This monograph concludes that a company-sized reconnaissance organization is needed to perform the necessary reconnaissance and security missions for the battalion commander.

14. SUBJECT TERMS SCOUT PLATOON, RECONNAISSANCE, SECURITY, ARMOR BATTALION, NATIONAL TRAINING CENTER, RECONNAISSANCE PLATOON, MILITARY, TACTICAL

15. NUMBER OF PAGES 66

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNLIMITED

SCHOOL OF ADVANCED MILITARY STUDIES
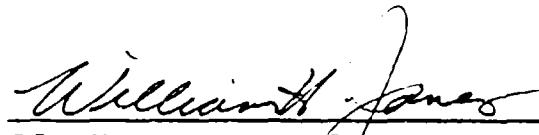
MONOGRAPH APPROVAL

Major Terry A. Wolff

Title of Monograph: <u>Tactical Reconnaissance and Security for</u>
<u>the Armor Battalion Commander: Is the</u>
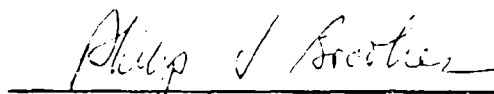<u>Scout Platoon Combat Capable or</u>
<u>Combat Ineffective?</u>

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Accepted this _____ day of _____ 1991

ABSTRACT

TACTICAL RECONNAISSANCE AND SECURITY FOR THE ARMOR BATTALION COMMANDER: IS THE SCOUT PLATOON COMBAT CAPABLE OR COMBAT INEFFECTIVE by Major Terry A. Wolff, USA, 66 pages.

To win on the AirLand Battlefield, the heavy armor battalion commander must synchronize all of his combat multipliers to focus combat power at the decisive place and time. Accurate reconnaissance and security operations provide the commander the necessary information to mass his force and exploit the enemy's weakness. This monograph examines whether the scout platoon can perform the required tactical reconnaissance and security missions for the armor battalion commander.

My methodology includes an encompassing review of the scout platoon. First, I will examine the theoretical and practical perspectives of reconnaissance and security operations. Next, I shall trace the evolution of the scout platoon from its reconnaissance platoon origins of World War II through changes made as recently as 1990. This summary provides the backdrop to highlight findings of the reconnaissance and counterreconnaissance studies conducted between 1985 and 1988. A review of the Soviet and National Training Center OPFOR reconnaissance capability will then portray the threat with which US scouts must contend. Finally, an analysis of recent NTC results using five criteria shows whether the performance of scout platoons has improved.

The paper suggests that our scout platoon does not conduct successful reconnaissance or security. Our doctrine asks the scout platoon to accomplish more then is humanly possible. The monograph concludes that a company-sized reconnaissance organization is needed to perform the necessary reconnaissance and security missions for the battalion commander.

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I. INTRODUCTION

> The commander must be able to see the battlefield.
> The first step in winning is seeing the battlefield. If
> the commander can't see the battlefield - before and
> during the battle - the day, the battle, maybe even
> the war is lost.'

To win on the AirLand Battlefield, the heavy armor
battalion commander must synchronize all of his combat
multipliers to focus combat power at the decisive place and
time. Accurate reconnaissance and security operations
provide the commander the necessary information to mass his
force and exploit the enemy's weakness. National Training
Center (NTC) results indicate that effective reconnaissance
forms the backbone upon which the commander must build,
change, or modify his plan. At the task force level, the
commander remains dependent on a 30-man scout platoon to
get critical information about the terrain and the enemy.

Task force success hinges on the scouts. Effective
planning begins with dependable reconnaissance, security,
and intelligence operations. This is not new information. As
early as 1983, NTC lessons published in the *Combined Arms
Training Notes* claimed that scouts could make the largest
contribution to winning the battle of any combat or combat

support platoon in the battalion.[2] According to Brigadier General E. S. Leland then commander of the NTC:

> The importance of reconnaissance cannot be over-emphasized. There is typically a battle which precedes the battle -- a confrontation of opposing reconnaissance units -- and the winner of that preliminary battle is most often the victor in the main event.[3]

This monograph examines whether the scout platoon can perform the required tactical reconnaissance and security missions for the armor battalion commander. To accomplish this I will first present a theoretical and practical perspective regarding the art of reconnaissance.

Next, I will trace the historical evolution of the scout platoon from its beginning during World War II up through recent equipment changes announced in April of 1990. This evolution will show how the platoon has repeatedly moved back and forth from an emphasis on reconnaissance to one of security.

Following this historical summary, I will look at five recent studies that addressed NTC reconnaissance and security issues. Then I will discuss the nature of the Soviet reconnaissance threat. At this point, I will analyze recent NTC scouting performances based on take home packets from

1986 through the middle of 1990. To assist in this analysis, I will use five criteria that are components of Soviet reconnaissance. These criteria are purposefulness, continuity, aggressiveness, timeliness, and reliability. They will be used to determine whether the scout platoon supports the combat actions of the armor battalion. I will also provide conclusions about the scout platoon's doctrine, organization, and equipment. Lastly, this assessment offers implications for future scout organizations.

Before I move into the theoretical perspectives, it is important to define certain scouting terms. The scout platoon evolved from the cavalry and as a result cavalry terminology has always been a part of the scout lexicon.

Reconnaissance refers to actions taken to obtain information about the enemy and the terrain upon which the commander bases his plan.[4] Scout platoons usually reconnoiter forward or to the flanks of the task force main body to provide information on the enemy and terrain and to prevent the main body from being surprised.

Security operations obtain information about the enemy while providing reaction time, maneuver space, and

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protection to the friendly force main body.[5] Cavalry
organizations conduct the following missions under the
security umbrella.

> *A screening force* maintains surveillance, provides
> early warning to the main body, and harasses the
> enemy with indirect fires. *A guarding force*
> accomplishes the screening tasks, and also prevents
> enemy ground observation and direct fire on the main
> body. *Covering force operations* include the tasks
> covered in the screen and guard, while normally
> operating out of supporting field artillery range of the
> main body.[6]

Normally, scout platoons conduct screens, but require
augmentation to perform other security missions.

Recently, the term counterreconnaissance has been
added to the list of security operations for scouts. In the
next addition of Field Manual 101-5-1, *Operational Terms and
Symbols*, counterreconnaissance is expected to be defined as.

> ... the sum of actions taken at all echelons to counter
> enemy reconnaissance and surveillance efforts through
> the depth of the area of operations. It is active and
> passive and includes combat action to destroy or repel
> enemy reconnaissance elements.[7]

II. THEORETICAL and PRACTICAL PERSPECTIUES

Know the enemy, know yourself; in a hundred battles
you will never be in peril. When you are ignorant of the
enemy but know yourself, your chances of winning or

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losing are equal. If ignorant of the enemy but know yourself, you are certain in every battle to be in peril.[5]

Classical theorists have always emphasized the importance of reconnaissance in gathering information about the enemy and the surrounding terrain. To establish a historical basis, I will examine the writings of Sun Tzu, Jomini, and Clausewitz. To gain a practical perspective, I will review the thoughts of Heinz Guderian and Wayne Hall. Each of these men recognized that information about the enemy represented the key to victory. Allocating resources and managing intelligence was a critical process.

The ancient philosopher, Sun Tzu, offered many ideas on reconnaissance in his *Art of War.* He emphasized learning as much as possible about the enemy's plans, movement, dispositions, and strengths and weaknesses.[9] This enabled the army to mass against vulnerable points. Sun Tzu claimed that, "the reason the enlightened prince and wise general conquer the enemy whenever they move and their achievements surpass those of ordinary men is foreknowledge."[10] This information was gained from men who knew the enemy situation -- special agents then and scouts

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now.

In his book, *The Art of War*, Henri Jomini claimed the chief of staff was responsible for, "ordering and directing reconnaissance of every kind, and procuring in this way as exact information as possible of positions and movements of the enemy."[11] Jomini prescribed four methods for gaining information on the enemy's operations. These included: espionage, reconnaissance by skilled officers and light troops, questioning of prisoners of war, and forming hypotheses of probabilities.[12] Jomini recognized that these methods helped paint a complete picture without over reliance on any single intelligence means. The author realized the difficulty in gaining detailed information about the enemy. In fact, he claimed this was one of the major differences between the theory and practice of war.[13]

In *On War*, Carl von Clausewitz does not directly address reconnaissance or security. Instead, he defines intelligence as. "every sort of information about the enemy and his country."[14] Although Clausewitz seemed to recognize this as the basis of his own plan and operation, he downplayed the accuracy of intelligence due to the reliability of reports and

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human nature. Clausewitz recognized that accurate intelligence was vital, but difficult to gain.

The insights of the classical theorists undoubtedly influenced subsequent thinkers such as Heinz Guderian and Wayne Hall. Examining the writings these men helps paint a modern perspective grounded in the age of mechanization. Their views reflect the importance of reconnaissance.

One of the most able practitioners of mobile warfare, Heinz Guderian, claimed that reconnaissance called for, "highly mobile, flexible, and easily handled units that possess a wide radius of action and good means of communication."[15] Most importantly, he stressed that reconnaissance elements must have the common sense to stay alive by avoiding combat.[16]

Lieutenant Colonel Wayne Hall, a military intelligence officer and former G2 of the 82d Airborne Division, provides a more contemporary and valid perspective. He contends that friendly and enemy forces engage in a quest to gain reconnaissance information. His model (see Appendix A) describes the reconnaissance and security struggle that occurs between US scouts and enemy reconnaissance units.

Hall indicates that friendly and enemy reconnaissance forces struggle to gain a finite amount of intelligence about the opposition.

Hall's model, which is deeply rooted in the works of Sun Tzu and Jomini, captures the essence of both the theoretical and practical reconnaissance struggle. It reflects the scout platoon's battle for intelligence information while performing reconnaissance and security operations for the battalion.

A review of the reconnaissance perspectives of both the cls ical and contemporary theorists reaffirms the importance of detailed and timely intelligence about the enemy. Guderian prescribed the need for mobile, easily handled units that could operate and survive in an environment portrayed by the Hall model.

III. HISTORICAL CHANGES AND THE SCOUT PLATOON

The scout platoon has undergone major modifications in personnel, equipment, and doctrine in the past fifty years (see Appendix B). In this section, I will show how these numerous organizational and equipment changes were accompanied by the requirement to provide more intelligence information. Additionally, the changes were completed

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without supporting doctrine and a thorough analysis regarding what the platoon should accomplish. These shifts reflected the difficulty determining what reconnaissance and surveillance capability the armor battalion needed.[18]

Throughout this period, the scout platoon's capability shifted back and forth from a light wheeled reconnaissance force to a unit capable of conducting security operations. Therefore, I will begin the historical review with the reconnaissance platoon and work through the scout platoon of 1990.

During World War II, the armored division went through three major TOE changes. By 1943, the reconnaissance platoon consisted of approximately 21-men operating in a M3 half-track and five jeeps.[19] This organization conducted stealthy scouting on routes, sites, or areas. Due to its lack of armor protection, combat was avoided. During battalion attacks, the unit normally screened a flank. In the defense, the platoon could establish up to three observation posts (OPs).[20]

According to Colonel (Ret) Jimmy Leach, LTC Creighton Abrams employed the 37th Armor's reconnaissance platoon in

a scouting role to draw fire and pinpoint the enemy's location. This force lacked the armor protection and survivability to accomplish much else.[21]

Based on World War II experiences, the General Boards of the late 1940s recommended major changes to the reconnaissance platoon. This unit now conducted "security and reconnaissance to the front, flanks, and rear of the battalion."[22] To facilitate these security missions, the platoon received additional men, tanks and a mortar squad.[23]

In the Pentomic era of the mid 1950s, the division's five battle groups were each given a 40-man scout platoon with fourteen jeeps to perform security and reconnaissance operations for the commander.[24] Although the jeeps provided no armor protection, the security missions remained.

In the early 1960s under the Reorganization of Army Divisions (ROAD) concept, heavy reconnaissance and security became the scout's primary missions. Consequently, armored personnel carriers (APCs) and tanks were again added.[25] In less then twenty years, the scout platoon had twice moved from a light, stealthy reconnaissance force back to a heavy element capable of security missions and limited

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reconnaissance.

Vietnam continued the platoon's emphasis on security. The scouts performed reconnaissance by fire, security, as well as eight other auxiliary duties.[26] Requirements for dismounted reconnaissance and stealthy information gathering subsided. Fighting scout platoons, operating in ten APCs, possessed the capability of piling on the firepower in a mini-cavalry role.

During the post-Vietnam transition to the Active Defense, the fighting scout platoon was reduced to a 30-man force.[27] Lessons from the 1973 Arab-Israeli War saddled the platoon with the TOWs and DRAGONs to defeat enemy tanks and BMPs. The platoon received its doctrinal guidance from FM 17-36, *Armored Cavalry - Platoon, Troop, and Divisional Armored Cavalry Squadron Manual.* Security operations were emphasized over reconnaissance.

The Army undertook multiple studies in the mid 1970s to evaluate cavalry doctrine, equipment, and organization. The 1976 Division Restructuring Test (DRS) served as the basis for the Division 86 reorganization. Again, light versus heavy scout operations was reevaluated. The Army decided to

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configure the battalion, divisional, and ACR scout platoon with 30-men operating six M3 Cavalry Fighting Vehicles (CFVs).[23] Commonality of equipment and organization, vehicle capability, and equipment cost tradeoffs placed the battalion scouts in fewer than ten vehicles for the first time since the end of World War II. The capability of the CFV justified the retention of the scout's security and reconnaissance responsibilities.

In 1985 the scout platoon finally received its own doctrinal manual which focused on the fighting cavalry scout. By October of 1987, the republished manual described doctrine for the battalion scout platoon. Once again the unit's primary missions had changed. Now scouts conducted only reconnaissance and screening operations. Lessons from the NTC had been incorporated into doctrine, and the scouts were expected to gain information to validate the battalion's Intelligence Preparation of the Battlefield (IPB).

Recent NTC lessons have again driven the Army to change the platoon's equipment. The success of High Mobility Multipurpose Wheeled Vehicle (HMMWV)-mounted, OPFOR scouts has been embraced as the solution to the scout

platoon's reconnaissance difficulties. In the near future, ten HMMWVs will replace six CFVs.[29]

After four major equipment and organization changes since World War II, today's scout platoon looks similar to the 1943 reconnaissance platoon. While the platoon has undergone these changes its list of tasks has grown significantly. Scouts no longer move forward to draw fire. Instead, they conduct reconnaissance and security missions with approximately the same number of men and vehicles as it's 1943 counterpart.

The missions versus means dilemma has followed the scout platoon since it's origin. In the next section of this paper, I will review how five recent scouting studies assessed the early lessons learned at the NTC.

IV. RECENT SCOUTING STUDIES

In the mid 1980's, NTC lessons routinely revealed that task forces were having difficulty acquiring and using reconnaissance information. Between 1985 and 1988, five different studies explored numerous scouting issues. These reconnaissance and counterreconnaissance studies were conducted by: the Army Training Board, the Armor School, the

RAND Corporation, and the Combined Arms Center. These studies built upon one another and painted a picture that needs to be briefly told.

The Army Training Board examined reconnaissance at the NTC and published a study entitled "Enhancement of Reconnaissance and Counterreconnaissance Techniques." This 1985 survey examined scouting at the battalion level by looking at NTC reconnaissance in light of doctrine, training, leader development, and material improvements. Task force reconnaissance and counterreconnaissance weaknesses included:

> . . . a lack of operational knowledge on the part of TF commanders, which leads to inadequate unit training and improper employment. It also concluded both doctrinal and training deficiencies exit that are contributing factors. Doctrine was developed for cavalry platoons and has been overlaid on the TF Scout Platoon.[30]

The study group recognized that reconnaissance in the objective area and counterreconnaissance remained critically important. Unfortunately, the scout platoon lacked the equipment, organization, and training to accomplish these difficult missions when fighting the NTC opposing forces (OPFOR).

The study found that scout platoons lacked doctrinal literature, appropriate home station training, TRADOC level schooling, and the proper organization.[31] Based on these deficiencies, the Armor School rewrote FM 17-98, *Scout Platoon* and developed a Scout Platoon Leader's Course.

In 1986 as the Army Training Board published its White Paper, the Armor School began studying reconnaissance and counterreconnaissance during NTC focused rotation 87-1. Major John D. Rosenberger's assessment concluded that the battalion task force cannot perform successful reconnaissance due to shortfalls in doctrine, training, organization, material, and NTC scenarios.[32] Reconnaissance operations suffered from a lack of command interest resulting in poor planning. Commanders did not consider reconnaissance essential. Consequently, the scouts did not receive the guidance or resourcing necessary for success. Task force performance in security operations led to the conclusion that, "the scout platoon alone cannot be expected to accomplish a screen mission."[33] Therefore, the scouts require augmentation to conduct all security missions.

The Armor School reaffirmed that reconnaissance and

security planning and the IPB process remained poor. The study found that scouts who initiated direct fire with enemy reconnaissance usually died. The liability of the CFV was stressed. Finally, the failure of the the task force to give scouts the priority on replacements, vehicle maintenance, and resupply reflected a general lack of command emphasis.[34]

While the Armor School gathered information at the NTC, the RAND corporation also conducted a thorough NTC study on the importance of reconnaissance to the success of offensive operations. The RAND team used 17 take home packets (THPs) covering 131 battles, observer/controller input, numerous interviews, and discussions with the Armor School team to accumulate evidence regarding reconnaissance issues.[35]

The RAND team stated that, "there is a strong correlation between successful reconnaissance, leading to accurate knowledge of enemy defensive positions, and a favorable outcome of offensive operations."[36] Only one quarter of the time did the task force attack with sufficient intelligence.[37] These results led the team to surmise that, "the task force scout platoon alone is apparently insufficient to cover the assigned sector and to accomplish the tasks inherent in

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complete reconnaissance, in the time available."[38]   Units exacerbate this problem by squandering much of the time due to poor battalion planning. The RAND assessment claimed that reconnaissance would occur only when commanders placed greater emphasis on the whole intelligence gathering system.[39]

The RAND team identified the same doctrinal, training, and equipment failures as the Armor School group. Based on their analysis of the OPFOR reconnaissance success, they recommended that the scout platoon be equipped with: HMMWUs with dismountable thermal viewers, more binoculars and night vision goggles, platoon radio relay equipment, and positional location equipment.[40] These recommendations offered inexpensive solutions to restore the capability for stealth by providing good optics and reliable communications.

In May of 1988, the Armor Center answered a Combined Arms Center requirement regarding the complete laydown of US cavalry/scout organizations from corps to battalion with the Cavalry/Reconnaissance Net Assessment-Master Plan. This study focused on the nature of the threat and developed a mission profile at each scouting and reconnaissance level.

Battalion scouts were declared capable of conducting route, zone, and area reconnaissance as well as screening missions in support of the battalion commander.[41]

The Armor School recommended that the scout platoon needed more wheeled vehicles to enhance stealth, to supplement the M3 CFV, and to assist in covering more ground. Most importantly, the Armor Center contended that "without increased capability in the battalion scout platoon, task force commanders will be forced to augment the reconnaissance/security missions with additional organic forces."[42] Extra vehicles with enhanced optical devices provided the solution to the platoon's difficulties. No change in the size of the platoon was authorized.

In the fall of 1988, General Maxwell Thurman, the Commander of Training and Doctrine Command, directed the Combined Arms Center to conduct a complete review of the reconnaissance and surveillance capability of the brigade and battalion task force. General Thurman claimed:

> Several studies and recent NTC experiences reveal that our brigades and battalion task forces are deficient in conducting reconnaissance, surveillance, and counter-reconnaissance. My intent is to identify the root causes of these problems and implement solutions that may involve one or more of the five domains -- doctrine,

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training, organizations, equipment, and leader develop-
ment. Solutions must not be solely NTC oriented but
need Armywide applicability.[43]

This assessment used the four previously mentioned studies
and considered several reorganization options that included
increases of up to 5-men and the addition of HMMWUs or
motorcycles. However, General Thurman directed that this
would be a zero sum personnel gain regardless of the
findings.[44] This constraint precluded organizational changes
that would have brought the unit's capabilities in line with its
missions.

These five major studies offer certain conclusions
regarding the employment and capabilities of the scout
platoon. First, in all operations the scout's primary mission
remains stealthy information gathering. To retain the
capability to get information, the scout platoon should only
fight to defend itself. Screening remains the highest level of
security. Finally, battalion commanders need to focus scouts
on only reconnaissance and screening operations. Other
missions detracted from the scout's ability to remain
responsive to the commander.

After four years of scrutiny, minor changes to the scout

platoon's doctrine, training, organization, equipment, and leader development should have eliminated our battalion-level scouting difficulties. Unfortunately in 1990, task forces still make the same reconnaissance and security mistakes which occurred in 1983.

Before looking at recent scout platoon performances, I should portray the enemy's reconnaissance capability that threatens the battalion scouts. Therefore, the Soviet reconnaissance system is the subject of the next section.

U. THE THREAT

The Soviet's possess a superb system of tactical reconnaissance, which I believe represents a worst case scenario to US forces. In this section I will explore the Soviet intelligence and reconnaissance system. This will be accomplished by briefly examining Soviet reconnaissance theory. Next, I will discuss the organization and capability of their tactical reconnaissance at the division, regimental and battalion levels. Finally, I will describe the Soviet reconnaissance techniques and procedures employed by the NTC OPFOR.

The 1987 version of *Taktika* provides the contemporary

Soviet perspective on reconnaissance. V.G. Reznichenko claimed:

> Tactical reconnaissance is the most important form of combat support. It is the sum total of measures implemented with the goals of acquiring, collecting, and studying information on the enemy, on the terrain and on the region of forthcoming operations in behalf of preparation and successful conduct of battle.[45]

Lessons from the Great Patriotic War led to the development of a centralized, redundant intelligence and reconnaissance system (*razvedka*) carried forward into the post World War II era.[46] Tactical *razvedka* supports levels below the army for the purpose of preparing for and winning the engagement. These efforts extend out 100 to 150 kilometers in depth. The Soviets layer their reconnaissance by incorporating different forces that accomplish specific missions in support of the effort as a whole. The ultimate goal of reconnaissance is to determine enemy strength, composition, dispositions, combat readiness, intentions, as well as the nature of the terrain and the enemy obstacle system.[47] With this information, the commander can validate or change his plan to mass and exploit the enemy's weakness to attain the required objectives. The Soviet concept of

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reconnaissance focuses on scouting without consideration of screening or security missions.[48]

The emphasis on reconnaissance soldiers demonstrates the Soviet concern with tactical *razvedka*. They regard the human as the best source of battlefield intelligence and use his abilities in concert with technological means to develop an accurate picture of the enemy's plan.[49] Specially trained Soviet scouts will penetrate enemy lines, gather and report information, and live to scout another day. Their equipment, organization, and training facilitates accomplishment of these tasks.

Soviet motorized and tank divisions possess a reconnaissance battalion (see Appendix C) that consists of five companies which include: a headquarters and service company, a reconnaissance assault company, two tracked reconnaissance companies, and a radio/radio reconnaissance company.[50] The reconnaissance assault company inserts small teams by air or ground which operate 50 to 100 kilometers forward of the divisional main body. The two tracked reconnaissance companies are each equipped with a platoon of three BMPs and a platoon of three tanks. They form six to

eight reconnaissance groups, consisting of two to three BRDMs or BMPs and a tank, and operate up to 50 kilometers in front of the main body on the division's three or four main axes.[51]

The Soviet regimental commander possesses his own reconnaissance company consisting of a tracked platoon of four BMPs, a wheeled platoon of four BRDMs, and a motorcycle section of three motorcycles.[52] This company forms three or four detachments which operate up to 25 kilometers forward of the regimental main body.

At the battalion level, the commander remains responsible for putting out his own reconnaissance. Normally, a battalion forms one or more combat reconnaissance patrol (CRPs) consisting of a motorized rifle platoon that may be augmented with an NBC and an engineer squad.[53] The CRP's mission includes detecting enemy reserves, antitank weapons, enemy strongpoints, weakly held sectors, and gaps in the enemy's formations, positions, or obstacles.

Conceptually, the Soviet tactical reconnaissance system provides continuous coverage through the layering of forces throughout the battlefield. I will now explain how the NTC's

OPFOR replicates Soviet tactics during their reconnaissance and counterreconnaissance effort.

During the offensive operations, the OPFOR employs division and regimental reconnaissance plus dismounted patrols to find nearly 80-90 percent of the US vehicle positions and obstacles.[54] To accomplish this level of detail, the OPFOR begins intelligence efforts immediately after change of mission. One to four divisional dismounted reconnaissance teams (DRTs) are inserted deep into the US sector 24 to 36 hours before the motorized rifle regiment (MRR) attack. These DRTs man OPs and provide the bulk of the intelligence about the US defensive preparations.[55] This information helps shape the MRR commander's plan and further dictates the reconnaissance and surveillance plan. Taskings go to the regimental reconnaissance commander (the scout platoon leader from one of the two OPFOR battalions) who prepares and then wargames his reconnaissance plan with the regimental commander.

Two nights prior to the attack, mounted reconnaissance attempts to penetrate US security forces and gain information about the defense. The first night, elements representing the

divisional reconnaissance battalion move at high speed to attempt to penetrate the US sector. The second night finds the bulk of the regimental reconnaissance moving along potential regimental axes 6-8 hours before the attack. Additionally, independent reconnaissance patrols of dismounted infantry may be sent to infiltrate US defensive positions to gain pinpoint information and to breach obstacles.

The S2 centrally controls all of these reconnaissance assets. Approximately two hours before the attack, the S2 issues a final reconnaissance update which allows the MRR commander to make last minute changes to his plan and communicate these before crossing the line of departure.[56]

In the defense, an OPFOR motorized rifle company defends against a US battalion attack. Limited OPFOR reconnaissance assets, normally about a platoon, provide security that represents a portion of the Soviet security zone forward of the main battle area (MBA). This force must defeat US reconnaissance in front of the MBA and prevent detailed information regarding OPFOR defensive efforts.[57]

The OPFOR's replication of Soviet reconnaissance and

security forces has implications for US scout platoons. During US offensive operations, the scout platoon must infiltrate past Soviet security forces to paint the OPFOR's defensive belt. In defensive operations, the scout platoon anchors a portion of the counterreconnaissance belt of the security zone. In both cases, the scouts provide intelligence to the commander while degrading or eliminating the threat's capability. In light of the redundant Soviet reconnaissance effort, the US scout platoon seems outnumbered and severely disadvantaged. Having described the Soviet and OPFOR reconnaissance capability, I will now examine recent NTC THPs to ascertain if the performance of the scouts has improved in light of the numerous reconnaissance studies.

UI. REUIEW of NTC LESSONS LEARNED, FY 1987 -1990

This section examines recent NTC results to determine whether the scout platoon's performance has changed in the past four years. To accomplish this, I will provide a general overview on how the scouts performed. Then, I will describe the tasks the platoon was required to accomplish. Finally, I will look at the recent NTC results and assess general trends. This analysis will be conducted using five criteria which

represent the Soviet requirements of reconnaissance. They include purposefulness, continuity, aggressiveness, timeliness, and reliability.[58]

NTC take home packets (THP) comprise the body of evidence used to form opinions regarding current scout performance. My review covered 31 armor battalion THPs consisting of approximately 189 battles fought between October 1986 and April 1990. This review examined whether the scout platoon's performance in its reconnaissance or security roles had evolved or changed significantly. I was interested in comparing the 1986-90 performance with conclusions previously drawn from the five reconnaissance studies mentioned earlier in the this paper. As I reviewed the scout's performance, I attempted to identify reasons for success or failure (see Appendix D).

After reviewing these 189 battles, the most startling fact was the battalion's failure to accomplish its mission. Mission accomplishment occurred only 16 percent of the time.[59] When it did happen, the US unit was as likely to be on the defense as the offense. Major improvements were not seen from one year to the next. The same problems and

difficulties reoccurred.

From rotation to rotation, the scout platoon's overall performance remained poor. Successful offensive and defensive operations centered on an effective reconnaissance or counterreconnaissance effort by the scout platoon. The Rosenberger-Armor School Study results, which contended that when the battalion scouts are successful, the battalion has a much better chance for success, were reaffirmed.[60] Therefore, I will now provide a more detailed mission description of what the scouts had to accomplish.

During deliberate attacks, hasty attacks, or movements to contact, the scouts were expected to observe or physically reconnoiter the objective area. This required the scouts to develop a plan of execution from the battalion's IPB, reconnaissance and security plan, and guidance from the commander. This plan included a 10-30 kilometer tactical maneuver, establishment of OPs out of enemy directfire range, and often dismounted patrolling into the objective area to locate enemy vehicle positions and obstacle systems. At times, obstacle breaching was required. Upon completion of these tasks, the scout platoon leader reported his progress

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to the S2. This information helped validate and update the IPB process to drive changes to the task force plan prior to movement across the line of departure.[61]

The scout platoon's role during security operations differed somewhat. The scouts normally occupied OPs along a screen line to detect and report the movement of mounted and dismounted enemy reconnaissance forces into the battalion sector. The scouts served as hunters merely identifying the targets before handing them off to a company team responsible for intercepting and killing these enemy forces.[62] Occasionally, the scouts accomplished this entire counterreconnaissance effort with little or no augmentation.

I have tried to paint the anatomy of the scout's reconnaissance and counterreconnaissance struggle as gleamed from the THPs. The poor performance of the scouts seems worthy of a more thorough assessment.

I will now analyze the scout's recent performance to determine whether this platoon accomplished the reconnaissance and security tasks for the armor battalion. To do so, I will use five criteria which are the Soviet requirements of reconnaissance.[63] First, the criteria will be

defined. Then, I shall assess whether the scout's reconnaissance and security performance met the defined conditions.

PURPOSEFULNESS

Purposefulness constitutes the first criterion for assessment and is defined as whether the reconnaissance and security focus remained on the main effort. Did the scouts gain information which met the commander's need and helped accomplish the task force mission?

From the reconnaissance perspective, the battalion commander sent the scout platoon to try to observe the objective area. Sometimes the scouts were directed to physically reconnoiter the objective. The scout platoon provided information on the enemy's defensive array less then one-half the time.[64]

Failure came in many forms. Often the scouts moved in a poor tactical manner and were killed by the OPFOR reconnaissance force. This occurred about 60 percent of the time.[65] If the scouts did penetrate the enemy security zone and establish OPs, they then had to locate enemy vehicle positions and obstacles and report this information to the

battalion. With this information, the task force had a chance for a successful attack. At times, the task force failed to augment the scouts with additional assets such as engineers, ground surveillance radars, radio relays, medics, or logistical packages. These failures, as well as overtasking the scouts in the time available, frequently contributed to defeat.

In the security/counterreconnaissance fight, the scouts established OPs along a screen line to identify the enemy's reconnaissance force. They participated in the counter-reconnaissance struggle over two nights. Rarely, did the scouts identify or find any enemy DRTs or mounted and dismounted patrols the first night. D··ring the second night, the scouts normally assisted in killing 30-80 percent of the enemy regimental reconnaissance and other elements.[66] When the scouts had to detect and kill the enemy by direct fire, they rarely survived.

As the counterreconnaissance fight concluded, the scouts attempted to identify the enemy's main and supporting attack. When the scout platoon tried to maintain contact with the attacking enemy force, they were usually destroyed during movement from one position to the next.

In summary, the scout platoon accomplished the reconnaissance mission only about 50 percent of the time.[67] When employed in the security zone, the scouts helped defeat the bulk of the enemy's mounted and dismounted reconnaissance force only 20-25 percent of the time.[68]

CONTINUITY

Continuity is the second criterion for assessing scout platoon performance. I was most interested in determining whether the scouts conducted operations around the clock, in all situations, throughout the depths of the battalion commander's battlefield until the enemy was defeated.[69]

During reconnaissance operations, the scouts moved to OPs overwatching the objective area. Ideally, the scouts would establish OPs deeper in sector to pinpoint the enemy's reserve and to help identify his reaction to the task force attack. Offensive operations require a robust scout platoon that at a minimum gets to positions overwatching the objective area and can perform continuous reconnaissance of the defensive array. If this does not occur, the task force attack fails. A 50 percent success rate indicated the scouts had difficulty performing continuous reconnaissance.[70]

During security operations, maintaining contact with the enemy reconnaissance force, then the MRR main body, remained a difficult undertaking. The counterreconnaissance battle alone challenged the scouts. Tracking the enemy MRR and staying alive is an incredibly tough task. Success occurred when the enemy attack was identified and handed off to the MBA forces.

There are several reasons why the scout platoon does not perform continuous reconnaissance. First, commanders tasked the scout platoon to accomplish more then was humanly possible in the time available. This overtasking seemed more then the product of poor task force time management. Secondly, the scouts received ancillary as well as nondoctrinal missions. For example, one task force required the scouts to perform liaison duty with the brigade headquarters. These missions degraded the commander's limited scouting assets and provided a questionable return. Thirdly, the scouts lacked a priority on resourcing early in the operation. The scout platoon cannot perform without augmentation and a significant logistical push before beginning each mission. Lastly, few provisions were made to

regenerate or replace attrited or destroyed scout platoons. In only one instance did a task force, which lost its scout platoon early in the reconnaissance effort, attempt to replace it with another platoon.

Sending scouts deep into the enemy's MBA to find, observe, and track the reserve remains a challenging task. Rarely did this occur. Surviving the movement through the security zone and getting to the objective area overextended most platoons.

The scouts tried to perform reconnaissance and counterreconnaissance in support of offensive and defensive operations. My research indicated that the platoons worked hard to get information to help the task force succeed. Often, the scouts were pushed to the point of exhaustion with little regard to their physical limitations. The scouts operated around the clock, but failed to accomplish the assigned tasks in support of the task force.

AGGRESSIVENESS

The reconnaissance and security struggle remains a clash of wills in pursuit for a finite amount of perishable intelligence. Since the scout platoon operates in this

environment, it must show initiative, daring, resourcefulness, and decisiveness.[71]

In most cases, the scout platoon seemed to possess these requisite qualities. Seldom did THPs indicate a lack of desire or motivation. Observer controllers felt that the scouts did everything humanly possible to accomplish the mission.

The operative issue remains whether the scouts are aggressive, decisive, and robust enough to deal with the enemy's reconnaissance effort. The statistics I have previously presented indicate that the scouts may be overly aggressive and decisive in the wrong manner. Stealthy information gathering requires scouts that avoid enemy contact and retain the capabilities of secrecy and surprise. Observer controllers reported that the scouts often engaged enemy reconnaissance elements first, thereby, sacrificing their position and ability to accomplish the mission. Additionally, my research showed that deficiencies in the scout platoon's execution led to failure nearly 33 percent of the time.[72] Many of the internal platoon problems remain related to effective planning, rehearsals, time management,

use of good movement techniques, actions on contact, and land navigation. Further investigation of these training deficiencies is beyond the scope of this paper.

TIMELINESS AND RELIABILITY

These two criteria constitute the fourth and fifth criteria for assessment. Does the reconnaissance and security effort provide the commander the necessary information to adjust and finalize his plan to mass combat power to exploit the enemy's weakness? Can he depend on the accuracy and reliability of the reconnaissance and security effort? Is there a mechanism to coordinate this effort in time, space, and depth?

Our doctrine claims the scouts can accomplish these tasks. Results from the NTC paint a different picture. If the task force IPB and planning remain poor and the scouts cannot maneuver or establish OPs, then timely and accurate information will not reach the commander.

Offensive operations often failed due to the lack of objective area reconnaissance. The scouts did not provide the detailed information that enabled the commander to attack the enemy's weakness. The Army must decide whether the

scouts should conduct physical reconnaissance of the objective.

Screening operations dominated the counter-reconnaissance fight. First, the infiltration of enemy reconnaissance elements compromised the US plan and enabled the MRR commander to mass against the unit's weaknesses. Second, the scouts must help identify the enemy's main attack so the commander can shift tank killing systems around the battlefield to regain the mass sacrificed in the security battle. Unfortunately, the scouts do not survive. When they do, they provide poor intelligence that is not accurate or timely.

Of all the organizations in the battalion, the scouts remain very sensitive to time. The battalion depends on the scout platoon to provide reconnaissance information to help finalize the attack plan. Additionally, the security operation must prevent the defensive plan from being compromised. The planning process produces several products critical to the success of the scouts.

The most important IPB products are the event and the decision support templates. These drive the unit's intelligence

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collection plan and the employment of the scouts to provide essential information about the enemy. My THP review indicated that IPB problems contributed to defeat one-third to one-quarter of the time.[73]

The battalion S2 prepares a reconnaissance and surveillance (R & S) plan which employs the scout platoon and other battalion assets to gain necessary reconnaissance and to assist in the counterreconnaissance operation. Observer controllers found that the R & S plan was inadequate nearly 50 percent of the time.[74] When properly prepared and resourced, these plans coordinate and synchronize the task force reconnaissance and security effort.

Effective time management plagued task forces during the planning process. Approximately 25 percent of the time, these problems left the scout platoon little time to develop and coordinate its own plan.[75] This resulted in a rushed movement forward and defeat by enemy reconnaissance. In the counterreconnaissance role, the scouts dashed out to the screen line without a good idea of what enemy intelligence to gain and where to focus the effort.

In this section of the paper, I have shown that the

scout's performance over the past four years has not improved. My review of 189 NTC battles indicates that the scouts certainly try h..d, but they fail to get the mission accomplished. The scout platoon does not gain the necessary intelligence information the commander needs. The scouts are not resourced to accomplish the continuous operations our doctrine requires. Additionally, they do not provide reliable information in a timely manner. In summary, the scout platoon does not routinely accomplish either its reconnaissance or counterreconnaissance tasks for the task force.

Interestingly enough, I found that units that succeeded at the NTC utilized their scouting assets in a special manner. In the reconnaissance fight, beating the defending NTC OPFOR required reconnaissance information from resources in addition to the scout platoon. Most often, the ground surveillance radars (GSRs) and a dismounted infantry company were committed to the effort. The scouts conducted reconnaissance from OPs overwatching the objective area while a dismounted mechanized company team conducted the detailed reconnaissance on the objective to determine the

enemy's positions, obstacle system and weaknesses.

In the defense, successful task forces committed the scouts and GSRs to OPs in depth on screen lines. The scouts identified the mounted and dismounted OPFOR reconnaissance and handed them off to a mechanized company team which intercepted and destroyed this enemy reconnaissance force. When the MRR main body attacked, the scouts deployed to OPs on the flanks to identify the main and supporting attack.

My analysis of our recent failures and these examples of success are significant as the task force succeeds or fails based on it's reconnaissance and counterreconnaissance effort. Unless the scout platoon receives augmer'ation and additional resources, the task force's chances for success are slim.

VII. CONCLUSIONS AND FUTURE IMPLICATIONS

After reviewing recent scouting studies and analyzing numerous NTC THPs, I have shown that the scout platoon has an enormous impact on the success of the task force. The reconnaissance/counterreconnaissance battle must be won and the scouts play the dominant role. Without timely intelligence information, the commander cannot make those

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decisions which lead to the successful employment of the combat power of the task force.

Scout platoon doctrine, contained in FM 17-98, accurately reflects the reconnaissance and counter-reconnaissance missions that must be accomplished by the task force. The problem remains that the desired ends exceed the allocated means. This mismatch of requirements to resources has grown over time.

Doctrine for the scouts has evolved from the World War II tasks of route reconnaissance and drawing enemy fire. In the offensive, we now expect stealthy reconnaissance of defensive positions in order to find and identify an enemy weakness the task force can exploit. In the defense, the counterreconnaissance effort must identify and handoff enemy reconnaissance forces before identifying the MRR's main attack. These missions surpass the tasks assigned to the World War II reconnaissance platoon. We expect the scouts to do more then ever without significant increases in personnel or equipment while fighting an enemy possessing a robust reconnaissance capability.

My review of NTC THPs indicated that successful task

forces routinely committed three to four platoons to the reconnaissance/counterreconnaissance fight. I believe that our battalion scouting organization must reflect what works.

The conclusion of this monograph is that the task force needs a company to accomplish reconnaissance and security operations. This force would provide the task force commander with the organic reconnaissance and security capability necessary to conduct offensive and defensive operations. Presently, the scout platoon cannot perform these requirements without significant augmentation and the formation of ad hoc arrangements.

This 150-man company would consist of four platoons. The two light scout platoons would each be equipped with ten HMMWWs to perform information gathering tasks from OPs. The two heavy platoons, each equipped with three CFV's and two M1 tanks, have the men and firepower to infiltrate objective areas and conduct security operations. A proposed organization for the reconnaissance company is at Appendix E.

This proposed organization focuses the task force's reconnaissance effort within the domain of a single company commander. This individual, who serves as the unit's

reconnaissance and surveillance expert, must get the necessary information for the task force to win the battle. Additionally, the dedicated resources of a company could solve the current reconnaissance training difficulties.

What about the future? As we look to a non-linear battlefield in future, our need for a robust reconnaissance and security capability at the battalion level increases. While technical systems propose to provide accurate and timely intelligence, the human will remain the most important intelligence asset the battalion commander possesses. The need for a reconnaissance company that can conduct stealthy reconnaissance as well as aggressive counterreconnaissance seems essential both now and in the future.

Appendix A: Reconnaissance/Counterreconnaissance Dynamic

Source: LTC Wayne Hall, "Principles of Reconnaissance"
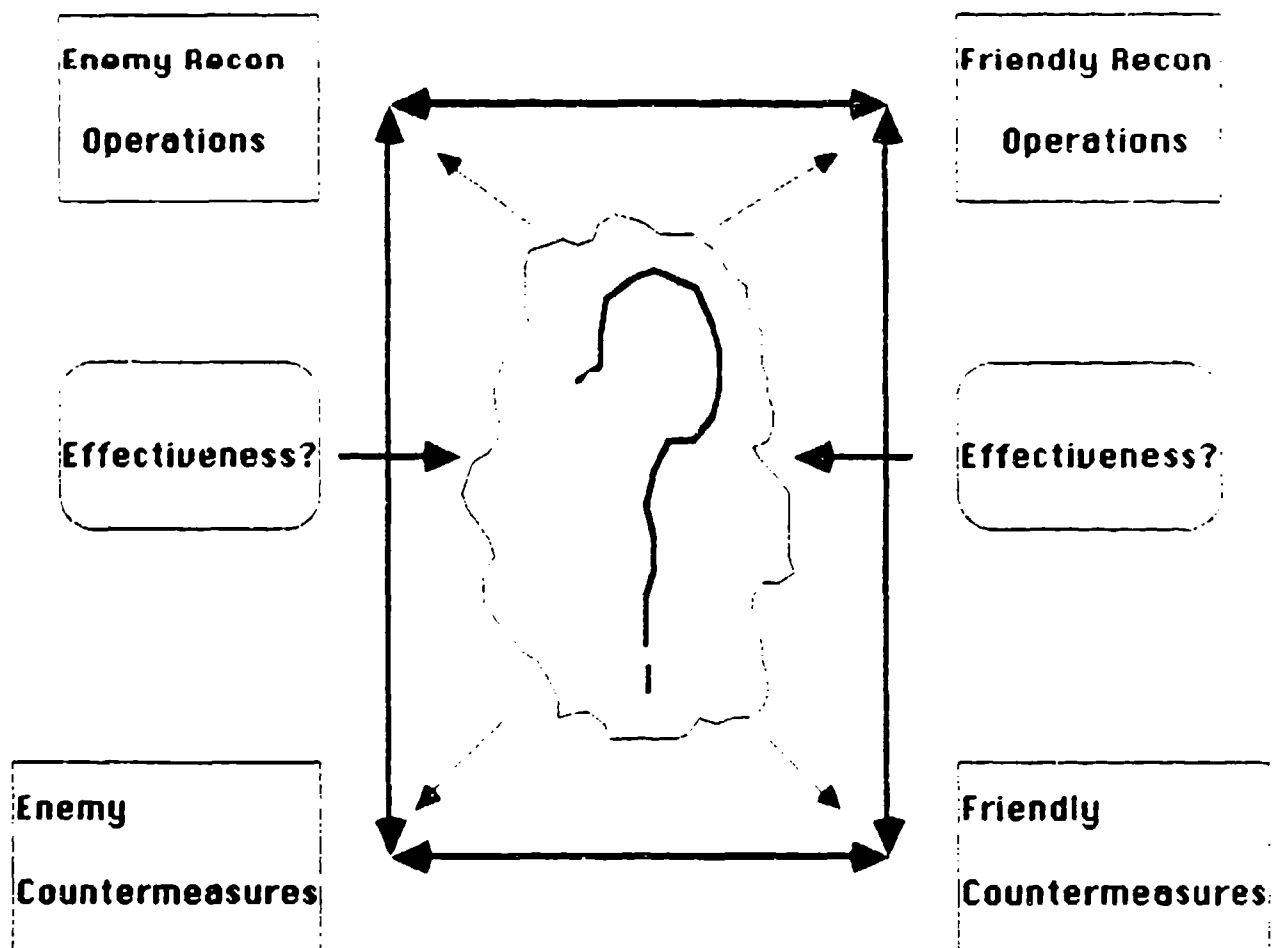
Appendix B: Reconnaissance/Scout Platoon Historical Summary.

Source: CPT (P) Harju, "White Paper - A Study of the Maneuver Battalion Reconnaissance or Scout Platoon." US Army Armor School, Fort Knox, KY, 18 September 1989, pp. 128-129.

PERIOD	TOE	# PERS/VEH.		ORGANIZATION	DOCTRINE
LIGHT RECONNAISSANCE PLATOON					
WWII 1943	17-24	1 + 20	6	1 - Halftrack 5 - Jeeps	FM 17-33 FM 17-42
HEAVY RECONNAISSANCE PLATOON					
Post WWII	17-25H	1 + 38	10	5 - Jeeps 2 - Tanks 1 - APC (Inf Sqd) 2 - Jeeps mortars	FM 17-33 FM 17-22
LIGHT SCOUT PLATOON					
Mid 1950s	17-25T	1 + 39	14	14 - Jeeps	FM 17-33
HEAVY SCOUT PLATOON					
ROAD 1963	17-35E	1 + 32	8	5 - M114S 2 - M41 Tanks 1 - M113 APC (Inf Sqd)	FM 17-35
VIETNAM 1966	17-35G	1 + 49	10	10 - M113 ACAVS	FM 17-15 FM 17-36
1973 H-series	17-35H	1 + 29	10	2 - M113s 4 - M113s Dragon 4 - M113s TOW	FM 71-2 FM 17-95
DIV 86 TRANSITION		1 + 29	6	3 - M113s 3 - ITVs	FM 71-2J FM 17-98
DIV 86		1 + 29	6	6 - M3 BFVs	FM 17-98
LIGHT SCOUT PLATOON					
Aug 90		1 + 29	10	10 - HMMWVs	FM 17-98

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Best Available Copy

Appendix C: Soviet Reconnaissance Capability

Source: FM 100-2-3, Soviet Army Troops, Organization and Equipment

Division Recon Bn

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                    ┌─────────┐
                    │  Recon  │
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  │ H & S │  │ Tracked  │  │  Recon  │  │ Radio/  │
  │       │  │ Recon Co │  │ Assault │  │ Radar   │
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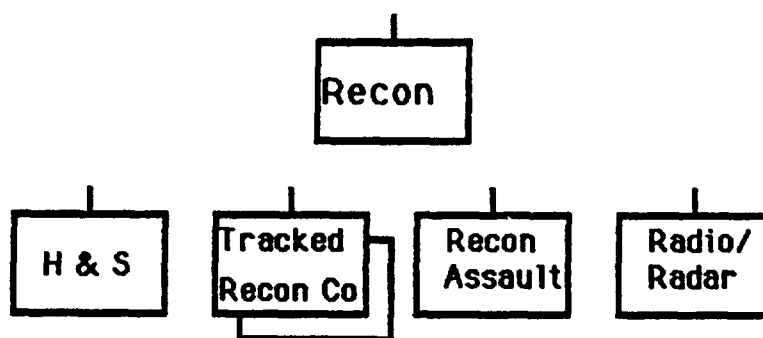
Tactics:
    Recon Assault Tms inserted by air or gnd up to 50-100 km fwd of division main body.

    Bn forms 6-8 recon detach of 2-3 BMPs/BRDMs and a tank. Operate up to 50 km/24-36 hrs fwd of main body.
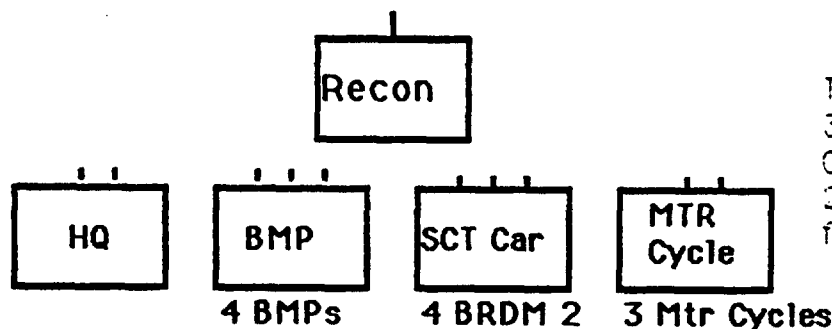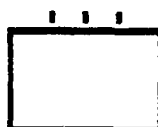
Regimental Recon Co

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                    │  Recon  │
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  │  HQ   │  │   BMP    │  │ SCT Car │  │  MTR    │
  │       │  │          │  │         │  │ Cycle   │
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               4 BMPs        4 BRDM 2    3 Mtr Cycles
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Tactics: Forms 3-4 recon detach. Operate up to 25 km/6-8 hrs fwd of regtl main body.

Motorized Rifle or Tank BN Recon Elements From Lead Company of Main Body

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Combat Reconnaissance Patrol (CRP)
MR Plt of 3 BMPs or Tk Plt of 3 T64/72/80

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Appendix D: Summary of NTC Results, October 1986-April 1990.

Source: Results of Research Conducted by the Author after reviewing 31 NTC Take Home Packets.

GENERAL STATISTICS

Take Home Packets Reviewed = 31
Rotations by Year
1987 = 6
1988 = 10
1989 = 9
1990 = 6

Total Number of Battles = 189
Deliberate Attack Missions = 62
Movement to Contact/Hasty Attacks = 61
Defend in Sector or Battle Positions = 66

Assessment of the Battles by Year

Year	Wins	Draws	Losses	% of Wins & Draws
87	7	2	27	24%
88	7	2	49	24%
89	4	0	45	8%
90	6	2	38	17%
TOTAL	24	6	159	16%

Other Statistics

Reconnaissance was Successful = 50%
Counterreconnaissance was Successful = 50%
* Scouts helped kill Threat Divisional Recon = rarely
* Scouts helped kill Threat Regimental Recon = 30-80%
% of the time the Scouts were killed by OPFOR = 60%
Planning Issues (% of times cited)
Weak IPB = 33%
Weak Reconnaissance & Surveillance Plan = 50%
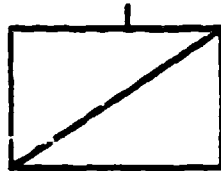Time Management Problems (BN) = 25%

Notes:

Each THP assesses a battalion's performance during six force-on-force and three live-fire battles. An assessment is provided in written narrative form using each of the battlefield operating systems (BOS). For the purpose of my research, I reviewed only the force-on-force fights. Every unit had a somewhat different mix of battles. Most often, a battalion participated in two defensive, two deliberate attack, and two movement to contact/hasty attack missions. Several of the THPs were so poor that I discarded portions of them and used only those assessments which seemed reasonably thorough and logical.

My THP assessment focused on the success or failure of the scout platoon. When reviewing the battles, I evaluated the scout's performance in light of the battalion's mission and the concept of execution. I checked each BOS, but primarily focused on intelligence, maneuver, and command and control to determine how they affected the scout's piece of the battalion operation. I also utilized the THP combat loss tables for each battle to determine whether the scout platoon survived the mission.
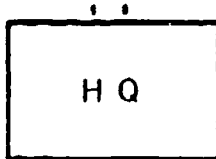
Next I assessed whether the task force accomplished its mission. A "win" equated to mission accomplishment while "losses" meant failure. "Draws" represented a call too close to make.

Finally, my statistical data is very elementary and was employed merely to identify general trends.
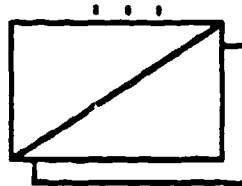
Appendix E: Armor Battalion Reconnaissance Company
(Proposed)

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        │        ╱│      150 man company
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              Each Plt has:      Each Plt has:
              10 HMMWVs          3 X M3 CFVs
              1-29-30 Men        2 X M1 Tanks
                                 1-40-41 Men
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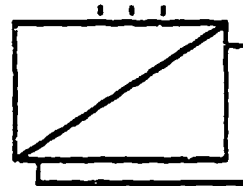
ENDNOTES

[1] Brigadier General David K. Doyle, "The Indispensable Scout," *Armor*, September–October 1977, p. 10.

[2] LTC John J. Menning, "Combined Arms Training Notes," *Army Trainer*, Winter 1983, p. 35.

[3] Brigadier General E. S. Leland, *National Training Center Lessons Learned Commander's Memorandum*, Headquarters, National Training Center and Fort Irwin, CA, 20 November 1985, p. 2.

[4] This definition is taken from FM 101-5-1, *Operational Terms and Symbols*, Washington, DC: Department of the Army, 21 October 1985, p. 1-60.

[5] Ibid., p. 1-64.

[6] These definitions regarding security operations are found in FM 101-5-1, *Operational Terms and Symbols*, p. 1-64; FM 17-98, *Scout Platoon*, p. 4-2; and FM 17-95, *Cavalry Operations*, chapter 4.

[7] General Officer Executive Council (GOEC) Briefing Slides and after action reports recommended that the definition of counter-reconnaissance be included in the updated FM 101-5-1, *Operational Terms and Symbols*.

[8] Sun Tzu, *The Art of War*, translated by Samuel B. Griffith (London: Oxford University Press, 1963), p. 84.

[9] Ibid., p. 100.

[10] Ibid., p. 145.

[11] Henri Jomini, *The Art of War*, edited by Brigadier General J.D. Hittle (Harrisburg, PA: Stackpole Books, 1987), p. 529.

[12] Ibid., p. 537.

[13] Ibid., p. 537.

"Carl von Clausewitz, *On War*, edited by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1984), p. 117.

"Major General Heinz Guderian, "Armored Forces," *The Infantry Journal*, September-October 1938, p. 418.

"Ibid., p. 418.

"Lieutenant Colonel Wayne M. Hall, *Principles of Reconnaissance*, (Unpublished paper, Fort Bragg, NC, September 1988), pp. 1-4.

" The best historical study on the Scout Platoon was recently completed at Fort Knox by CPT(P) Stephen Harju and is entitled "White Paper - A Study of the Maneuver Battalion Reconnaissance Platoon or Scout Platoon." It covers in great detail the many changes that have occurred to this organization.

" This information was taken from a review of: Table of Organization A, *Armored Division*, Headquarters, Armored Force, 1 January 1942; Table of Organization 17, *Armored Division*, Headquarters, Armored Force, 1 March 1942; and Table of Organization 17, *Armored Division*, Headquarters, Armored Force, 15 September 1943.

[20] The employment of the reconnaissance platoon was determined by reviewing several manuals to include: FM 2-10, *Cavalry Field Manual Mechanized Elements*, dated 8 April 1941; FM 17-10, *Armored Force Tactics and Techniques*, dated 7 March 1942; and finally FM 17-33, *Tank Battalion*, dated 18 September 1942 and December 1944. A reconnaissance manual for the scout platoon was not published until 1985.

[21] Interview with Colonel (Ret) Jimmy Leach former commander of B Company, 1-37 Armor during World War II.

[22] Field Manual 17-33, *Tank Battalion*, Washington, DC: Department of the Army, September 1949, p. 9.

¹⁰Ibid., p. 9.

¹⁰ *Reference Data for Armor Units* (ROCAD-ROCID), United States
Army Armor School, Fort Knox, KY, May 1957, p. 51.

²⁰ *Reference Data for Armor Units*, United States Army Armor School,
Fort Knox, KY, April 1965, p. 174.

²¹Field Manual 17-15, *Tank Units: Platoon, Company, and Battalion*,
Washington, DC: Department of the Army, March 1966, p. 175.

²²CPT(P) Stephen S. Harju, "White Paper - A Study of the Maneuver
Battalion Reconnaissance Platoon or Scout Platoon," United States
Army Armor School, Fort Knox, KY, 18 September 1989, p. 47.

²³Ibid., pp. 70-77.

²⁴"The Bustle Rack," *Armor*, March-April, p. 49. For additonal
information on the HMMWV's performance at the NTC see Major Barry
Scribner, "HMMWV's and Scouts: Do They Mix?," *Armor*, July-August
1989, pp. 32-38.

²⁵Captain Dee Christensen, Captain Robert Plummer, and Major
Steve Stanfield, "Enhancement of Reconnaissance and
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²⁶Ibid., pp. 1-5.

²⁷These results have been summarized from Major John D.
Rosenberger, "An Assessment of Reconnaissance and Counter-
reconnaissance Operations at the National Training Center," United
States Army Armor School, Fort Knox, KY, February 1987, pp. 3-4 and
15-16. Hereafter referred to as Rosenberger, "An Assessment of
Reconnaissance and Counterreconneissance Operations at the National
Training Center."

²⁸Ibid., p. 10.

"Ibid., general summary of the security issues from pp. 14-16.

" Martin Goldsmith and James Hodges, *Applying the National Training Center Experience: Tactical Reconnaissance* (Santa Monica, CA: the RAND Corporation, October 1987), pp. 6-10. Hereafter referred to as Goldsmith and Hodges, *Tactical Reconnaissance*.

" Ibid., p. v.

" Ibid., p. v.

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" Ibid., p. 67.

" Ibid., summarized from p. 69.

"US Army Armor Center, "Cavalry/Reconnaissance Net Assessment-Master Plan," Fort Knox, KY, 1 August 1988, p. 11.

" Ibid., p. 20.

"Tasking for Combined Arms Center; Reconnaissance, Surveillance, and Counterreconnaissance Assessment and Correspondence by TRADOC Commander General Maxwell Thurman to Commander US Army Combined Arms Center, 15 August 1988, p. 1.

" Ibid., p. 2.

" This and other practical perspectives on Soviet tactical reconnaissance have been taken from: A.G. Reznichenko, *Taktika 1987,* (Washington, DC: US Government Printing Office, 29 June 1988), p. 55; R.G. Simonyan and S.V. Grishin, *Tactical Reconnaissance: A Soviet View,* (Washington DC: Department of the Air Force, 1990); and Colonel David Glantz's "The Fundamentals of Soviet Razvedka (Intelligence/Reconnaissance)," Soviet Army Studies Office, U.S. Army Combined Arms Center, Fort Leavenworth, Kansas, January 1989.

⁴⁸Colonel David Glantz, "The Fundamentals of Soviet Razvedka," Soviet Army Studies Office, U.S. Army Combined Arms Center, Fort Leavenworth, Kansas, January 1989, p. 4. Hereafter cited as Glantz.

⁴⁹These and other practical perspectives on Soviet tactical reconnaissance have been taken from the references mentioned in Endnote 45.

⁵⁰ David C. Isby. *Weapons and Tactics of the Soviet Army* (London: Jane's Publishing Company, Ltd., 1988), p. 371.

⁵¹R.G. Simonyan and S.V. Grishin, *Tactical Reconnaissance: A Soviet View*, (Washington DC: Department of the Air Force, 1990), p. 9.

⁵²FM 100-2-3, *Soviet Army Troops Organization and Equipment*, (Washington, DC: Headquarters, Department of the Army, Draft 1989), p. 4-67. Hereafter cited as FM 100-2-3.

⁵³Glantz, p. 23.

⁵⁴FM 100-2-3, p. 4-15.

⁵⁵FM 100-2-1, *The Soviet Army Operations and Tactics*, (Washington, DC: Headquarters, Department of the Army, Final Draft 19 June 1990), p. 6-41.

⁵⁶ The description of the NTC OPFOR's reconnaissance conducted in support of the Soviet offense has been compiled from several sources to include: Rosenberger, "An Assessment of Reconnaissance and Counterreconnaissance Operations at the National Center Center"; Major Myron J. Griswold, "Counterreconnaissance Operations of the Heavy Battalion Task Force on the AirLand Battlefield," Sudent monograph, School of Advanced Military Studies, US Army Command and Staff College, Fort Leavenworth, KS, 16 December 1985, pp. 15-16; Major David K Ozolek, "Reconnaissance Planning: A Neglected Art," *Infantry*, March-April 1986, pp. 27-31; and the review of numerous NTC Take Home Packets.

⁵⁴ Goldsmith and Hodges, *Tactical Reconnaissance*, p. 64.

⁵⁵ The description of the NTC OPFOR's reconnaissance conducted in support of the Soviet defense has been compiled from several sources to include: Goldsmith and Hodges, *Tactical Reconnaissance*, pp. 43-48; Rosenberger, "An Assessment of Reconnaissance and Counter-reconnaissance Operations at the National Center"; Major David K Ozolek, "Reconnaissance Planning: A Neglected Art," *Infantry*, March-April 1986, p. 27-31; Lieutenant Colonel Lester W. Grau, "Soviet Battalion in the Defense," *Military Review*, December 1989, pp. 55-61; and the review of numerous NTC Take Home Packets.

⁵⁷ The description of the NTC OPFOR's defensive security zone array was compiled from the same sources as listed in Endnote 56.

⁵⁸ The criteria for analysis are based on the Soviet requirements of reconnaissance written by A. G. Simonyan and S. V. Grishin, *Tactical Reconnaissance* (Washington, DC: Department of the Air Force, 1990), pp. 4-8.

⁵⁹ Summarized from Headquarters, National Training Center, *Take Home Packages* Nos. 87-1/2/3/4/5/6; 88-2/3/4/5/6/7/8/9/10/14; 89-1/2/3/4/5/7/10/11/13; and 90-2/3/4/5/6/7. Hereafter referred to as *Take Home Packages 1987-90.*

⁶⁰ Rosenberger, "An Assessment of Reconnaissance and Counterreconnaissance Operations at the National Center," pp. 3 and 14.

⁶¹ This summary of the scout platoon reconnaissance tasks comes from the review of the 31 THPs and doctrinal reconnaissance missions specified in FM 17-98, *Scout Platoon.*

⁶² This summary of the scout platoon counterreconnaissance tasks has been taken from the review of 31 THPs and doctrinal security missions specified in FM 17-98, *Scout Platoon.*

"The Soviet requirements of reconnaissance include: purposefulness, continuity, aggressiveness, timeliness, security, and reliability. For the purposes of this monograph, I have elected not to use security. These requirements have been taken from R.G. Simonyan and S.U. Grishin, *Tactical Reconnaissance*, pp. 4-8.

" *Take Home Packages 1987-90.*

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"Use of the component questions for the criterion continuity has been based on the Soviet definition from R.G. Simonyan and S.U. Grishin, *Tactical Reconnaissance*, p. 5.

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